

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
LOW DURATION FIXED INCOME PROGRAM**

April 21, 2008

This policy is effective immediately upon adoption and supersedes all previous Low Duration Fixed Income Program, Dollar-Denominated Fixed Income Limited Duration Program, Dollar-Denominated Fixed Income High Quality Libor Program, Dollar-Denominated Fixed Income Short Duration Program, and Internally Managed Dollar-Denominated Short-Term Program policies.

I. PURPOSE

The CalPERS Total Fund Statement of Investment Policy adopted by the CalPERS Investment Committee ("Committee"), sets forth CalPERS' overarching investment purposes and objectives with respect to all its investment programs.

This document sets forth the investment policy ("Policy") for the Low Duration Fixed Income Program ("LD Program"). The design of this Policy ensures that investors, managers, consultants, and other participants selected by the California Public Employees' Retirement System ("CalPERS") take prudent and careful action while managing the Programs. Additionally, use of this policy assures sufficient flexibility in managing investment risks and returns associated with this Program.

This Policy is the controlling document for the following Programs:

- A. Attachment A – Dollar-Denominated Fixed Income Limited Duration Program;
 - 1. Attachment A1 – Dollar-Denominated Fixed Income High Quality LIBOR Program ("HQL Program");
 - 2. Attachment A2 – Dollar-Denominated Fixed Income Short Duration Program ("SD Program"); and
 - 3. Attachment A3 – Eligible Repo Counterparties.
- B. Attachment B – Internally Managed Dollar-Denominated Short-Term Program ("ST Program"); and
- C. Attachment C – Short Duration Programs Comparison.

II. STRATEGIC OBJECTIVE

The LD Programs shall be managed to accomplish the following:

- A. Diversify CalPERS overall investment programs;
- B. Dampen the overall risk of CalPERS' investment programs; and
- C. Enhance CalPERS' total returns.

III. RESPONSIBILITIES

A. CalPERS' Investment Staff ("Staff") is responsible for the following:

- 1. All aspects of portfolio management and oversight including monitoring, analyzing, and evaluating performance relative to the appropriate benchmark.
- 2. Reporting on the performance and risk metrics for each individual LD Program to the Committee, at least annually for externally managed, and quarterly for internally managed LD Programs.
- 3. Monitoring internal and external managers in the implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of Policies at the next Committee meeting, or sooner if deemed necessary. These reports shall include explanations of the violations and appropriate recommendations for corrective action.

B. The General Pension Consultant ("Consultant") is responsible for:

Monitoring, evaluating, and reporting at least annually, to the Committee, on the performance of the LD Programs relative to the appropriate benchmarks and the Policy.

IV. PERFORMANCE OBJECTIVE AND BENCHMARK

The specific performance objective and benchmark for each LD Program is detailed in the appropriate attachment.

V. INVESTMENT APPROACHES AND PARAMETERS

The specific Investment Approaches and Parameters for each LD Program are detailed in the appropriate attachment.

VI. LIMITED DURATION INVESTMENT PROGRAM CHARACTERISTICS

Although both the HQL and SD Programs are designed to be limited-duration in nature, the two investment programs differ in their targeted investment horizon, program objectives, and expected program participants. While the HQL Program is an appropriate investment for numerous CalPERS sub-strategies, the SD Program is designed to be a slightly more aggressively managed limited duration program for participants having a longer investment horizon that allows for higher monthly return volatility in exchange for higher expected long-term alpha. For instance, the SD Program is viewed as an appropriate investment for the “core” portion of the securities lending assets.

Given the different investment time horizons, program objectives, and expected program participants, the investment policies that govern the two programs do have some major policy differences and multiple minor differences.

The following table summarizes the basic program characteristics.

	High Quality LIBOR	Short Duration Program
Investment Horizon	Less than 30 days	6 - 12 months
Objective	Medium / High Liquidity	Medium Liquidity
	Capital Preservation	Total Rate of Return
	Total Rate of Return	
Participants	Global Fixed Income	Securities Lending
	Domestic Equity	
	Securities Lending	
Liquidity Requirement	High	Medium
Program Duration Constraint	90 Days Max	180 Days Max
WAL Constraint		
Fixed Rate Securities	90 Days	2 years
AAA-Rated Floating Rate Securities	5 Years	7 Years
Minimum Credit Quality		
Structured Securities	AAA	BBB

VII. CALCULATIONS AND COMPUTATIONS

Investors, managers, consultants, and other participants selected by CalPERS shall make all calculations and computations on a market value basis as recorded by CalPERS' Custodian, unless otherwise provided in attachments.

VIII. GLOSSARY OF TERMS

Key words used in the policy and attachments are defined in CalPERS' Master Glossary of Terms.

Low Duration Fixed Income Program

Approved by the Policy Subcommittee: April 21, 2008

Attachment A – Dollar-Denominated Fixed Income Limited-Duration

Dollar-Denominated Fixed Income Short-Duration

Approved by the Policy Subcommittee:	June 13, 2003
Adopted by the Investment Committee:	August 18, 2003
Revised by the Policy Subcommittee:	June 11, 2004
Adopted by the Investment Committee:	August 16, 2004

Name changed to Dollar-Denominated Fixed Income Limited-Duration

Revised by the Policy Subcommittee:	December 9, 2005
Adopted by the Investment Committee:	February 14, 2006

Attachment B – Dollar-Denominated Short-Term Program – Internally Managed

Approved by the Policy Subcommittee:	September 27, 1996
Adopted by the Investment Committee:	November 18, 1996
Revised by the Policy Subcommittee:	June 11, 2004
Adopted by the Investment Committee:	August 16, 2004

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
DOLLAR-DENOMINATED FIXED INCOME
LIMITED-DURATION PROGRAM**

February 14, 2006 April 21, 2008

~~This Policy is effective immediately upon adoption and supersedes all previous dollar-denominated fixed income short duration policies.~~

I. PURPOSE

~~This document sets forth the investment policy ("the Policy") for the Dollar Denominated Fixed Income Program ("the Program"), Limited Duration investment funds. The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of the market.~~

~~This will be the controlling document for both the High Quality LIBOR Fund ("the HQL Fund") and the Short Duration Fund ("the SDF").~~

**II. DOLLAR DENOMINATED FIXED INCOME, LIMITED DURATION
INVESTMENT FUNDS PROGRAM**

A. The High Quality LIBOR Program ("HQL Program Fund") is designed to be a limited duration, highly liquid fund-program that can be used by CalPERS' Portfolio Managers as a way to invest in a limited duration asset that provides low volatility versus a floating-rate based benchmark.

1. Uses for the HQL Program Fund include, but are not limited to:

- a. a stand-alone asset in the fixed income mortgage portfolio as a proxy for high coupon mortgage pass-throughs;₇
- b. an asset in the securities lending portfolio that will be managed internally;₇
- c. the cash component of mortgage dollar roll transactions;₇
- d. the cash component of interest rate swap transactions;₇ and

- e. the cash component of the Equity Dynamic Completion Fund transactions.
2. ~~The Statement of Investment Policy for the HQL Program Dollar-Denominated Fixed Income, High Quality LIBOR is attached as Attachment A1f.~~
- B. The Short Duration Program (“SDF Program”) is designed to earn a return premium versus traditional limited duration assets through a modest increase in portfolio duration and by purchasing a broader universe of limited duration securities than those typically available to traditional money market portfolios. Expanding the allowable universe of limited duration securities provides the opportunity to increase return by taking advantage of some structural aspects inherent in the limited duration sector. Traditionally there are three strategies that provide incremental alpha opportunities for limited duration investors. These strategies include extending duration out the yield curve, accepting lower liquidity, and investing down the credit spectrum. The SDF Program will be designed to take advantage of all three strategies, as well as other strategies that add incremental value, within a controlled manner and will result in a modest increase in risk relative to the HQL Program fund.
1. Uses for the SDF Program include, but are not limited to:
 - a. the “core” asset of the internally managed securities lending portfolio;⁵⁷
 - b. a stand-alone asset in the fixed income mortgage portfolio as a proxy for high coupon mortgage pass-throughs; and,
 - c. the cash component of mortgage dollar roll transactions and interest rate swap transactions.
2. The key determinant for the use of the SDF Program is the identification of a pool of funds that require less liquidity than that provided by the HQL ~~fund~~ Program. It is anticipated that the majority of CalPERS sub-strategies desiring limited-duration assets will use both the HQL Program ~~fund~~ and SDF Program at various times depending on liquidity needs.
3. ~~The Statement of Investment Policy for the Dollar-Denominated Fixed Income, Short Duration Fund Program is attached as Attachment A2f.~~

III. ~~FUND CHARACTERISTICS AND SYSTEM USES~~

~~The HQL Fund and the SDF will both be utilized as limited-duration investment alternatives by various asset classes within the System.~~

~~Attachment III outlines the basic differences in the two funds.~~

~~A. Attachment IV details how the limited-duration alternatives are utilized as assets within the System.~~

~~Dollar-Denominated Fixed Income Short-Duration~~

~~Approved by the Policy Subcommittee: June 13, 2003~~

~~Adopted by the Investment Committee: August 18, 2003~~

~~Revised by the Policy Subcommittee: June 11, 2004~~

~~Adopted by the Investment Committee: August 16, 2004~~

~~Name changed to Dollar-Denominated Fixed Income Limited-Duration~~

~~Revised by the Policy Subcommittee: December 9, 2005~~

~~Adopted by the Investment Committee: February 14, 2006~~

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
DOLLAR-DENOMINATED FIXED INCOME
HIGH QUALITY LIBOR PROGRAM**

February 14, 2006 April 21, 2008

~~This Policy is effective immediately upon adoption and supersedes all previous dollar-denominated fixed income High Quality LIBOR policies.~~

I. ~~PURPOSE~~

~~This document sets forth the investment policy ("the Policy") for Dollar Denominated Fixed Income Program ("the Program"), High Quality LIBOR fund ("the HQL Fund"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of the market.~~

II. ~~STRATEGIC OBJECTIVE~~

~~Achieving the highest total rate of return possible, consistent with a prudent level of risk and the liabilities of the System is the strategic objective of the Program. The principal functional objectives for the HQL Fund are liquidity and preservation of capital.~~

~~The HQL Fund shall be managed to accomplish the following:~~

- ~~A. Diversify the System's overall investment Program;~~
- ~~B. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law;~~
- ~~C. Provide stable limited duration returns;~~
- ~~D. Enhance the System's total return.~~

~~III. RESPONSIBILITIES AND DELEGATIONS~~

~~A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy. The Investment Committee delegates the responsibility for administering the Program to the Investment Staff through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).~~

~~B. The **System's Investment Staff's** ("the Staff") duties include, but are not limited to, the following:~~

~~1. Developing and recommending the Policy to the Investment Committee;~~

~~2. Developing and maintaining a procedures manual, subject to periodic reviews and updates, outlining Staff operational procedures used in implementing this Policy;~~

~~3. Implementing and adhering to the Policy;~~

~~4. Auditing the securities trading activities of portfolio managers and traders by the Senior Investment Officer, Fixed Income;~~

~~5. Reporting immediately all violations of the Policy to the Chief Investment Officer; the violation reporting process shall be as follows:~~

~~a. The Staff shall report orally, or in writing, all violations immediately to the Senior Investment Officer, Fixed Income.~~

~~b. The Senior Investment Officer, Fixed Income shall immediately report orally, or in writing, any violation verbally to the Chief Investment Officer and the Assistant Executive Officer.~~

~~c. As a follow-up to the verbal report, the Staff shall prepare a written report of any violation within a time period not exceeding 30 days.~~

~~d. The Chief Investment Officer shall determine the appropriate means of further reporting based on his or her judgment of the magnitude, sensitivity and severity of the violation.~~

~~e. All violations shall be reported to the Investment Committee as part of a quarterly report agenda item on the Investment Committee's regular agenda. The report shall coincide with the regular quarterly reports of the CalPERS general pension consultant.~~

~~f. Depending on the violation, and at the discretion of the Chief Investment Officer, reporting may also be made to the Investment Committee. The report may be made as a separate agenda item or as a portion of the Chief Investment Officer's Report at the next scheduled Investment Committee meeting.~~

~~6. Purchasing only securities outlined in the Policy; and~~

~~7. Reporting to the System's Investment Committee at least quarterly about the following issues:~~

~~a. Portfolio duration;~~

~~b. Sector weightings;~~

~~c. Fixed and floating rate breakout;~~

~~d. Security rating scales (e.g. AAA%, AA%);~~

~~e. An exceptions report that covers Policy violations~~

~~8. Reporting internally to senior management concerning the implementation of this Policy. This report shall be prepared monthly to include, but is not limited to, the following areas:~~

~~a. Current market value and allocations by sector;~~

~~b. Aggregate and individual portfolio characteristics and risks (including duration) compared to guidelines; and~~

~~c. An exception report covering delinquencies, defaults, and deteriorating credits.~~

~~9. Reporting to the Investment Committee on the performance of the Program as needed and monitoring implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of the Policy immediately, and in writing, to the Investment Committee, along with an explanation and appropriate recommendation for corrective action.~~

~~C. The **General Pension Consultant** is responsible for monitoring, evaluating, and reporting to the Investment Committee, at least quarterly, about the internally and externally managed fixed income performance relative to the benchmark and Policy guidelines.~~

I.V. PERFORMANCE OBJECTIVE AND BENCHMARK

The performance objective for the Dollar-Denominated Fixed Income High Quality LIBOR Program ("HQL Program") is to Slightly exceed the return of a Federal Funds based index while maintaining a high level of diversification and liquidity.

II.V. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approach

Identifying opportunities across limited duration bond market sectors and investing where risks are both understood and manageable while maintaining credit quality, duration, convexity, and liquidity as specified in theis High Quality Libor Policy ("Policy") is the investment approach of the HQL FundProgram. Given the mandate for the HQL FundProgram to be a high liquidity, preservation of capital fund, measured versus a Federal Funds based benchmark, it is expected that AAA rated fFloating rRate AAA-rated Ssecurities will represent a majority of the fund's HQL Program holdings.

B. Specific Risk Parameters

CalPERSThe System shall manage the following major categories of fixed income risk:

1. Benchmark Risk was reviewed by the Consultant who determined that the Federal Funds based index was the appropriate reference point. addresses whether the Federal Funds index is the appropriate reference point for the HQL Fund.
2. Interest Rate Risk will be controlled by limiting is the price volatility produced by changes in the overall level of interest rates as measured by an option-adjusted duration. Dduration shall be maintained at a level that does to not exceed 90 days due to the stable return mandate of the HQL FundProgram. Decisions shall be managed in a controlled manner using historical real return relationships and economic analysis.

Maturity and Duration Constraints

Asset	Maturity Limits
US Treasury & Govt. Sponsored	91 days
<u>Repurchase Agreements</u>	
US Treasury/ <u>Agency</u> Collateral	3 months
Non US Treasury/Agency Collateral	1 month
AAA Rated Fixed Rate <u>Structured Securities</u>	90 day WAL
AAA Rated Floating Rate Structured Securities	5 year WAL
<u>Money Market Securities</u>	
> = A1/P1	90 days
< A1/P1	35 days
<u>Corporate & Yankee Sovereign</u> (AAA rated)	90 days
<u>Corporate & Yankee Sovereign</u> (less than AAA rated)	35 days
<u>Yankee Sovereign</u> (less than AAA rated)	35 days

3. ~~Yield Curve Risk is the price changes induced by the changing slope of the yield curve. Yield eCurve rRisk shall must be managed in a controlled, disciplined fashion by employing break-even, economic analysis, partial duration, and principal component analysis.~~
4. ~~Convexity Risk is the downside risk of an equal move up or down in interest rates, causing greater price loss than price gain. Convexity Risk shall must be managed using option-adjusted and scenario analyses.~~
5. ~~Sector and Asset Risk is the risk of holding sectors and assets proportionally different from the Index. Sector Risk and Asset Risk will be controlled using the below ranges. Based on the economic outlook, historical factors, and break-even analysis, Staff shall estimate the impact on various sectors' and assets' spreads and make allocations accordingly.~~

Asset and Sector Diversification

Asset / Counterparty	Diversification Limits
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	25%
AAA Rated Structured Securities	10%
Corporate & Yankee Sovereign (AAA rated)	10%
Corporate & Yankee Sovereign (less than AAA rated)	5%
Yankee Sovereign (less than AAA rated)	5%
Money Market Securities	
> = A1/P1 (next business day maturity)	15%
> = A1/P1	10%
< A1/P1 (next business day maturity)	10%
< A1/P1	5%

Sector	Diversification Limits
Floating Rate	No Restriction
Fixed Rate (greater than 35 day maturity)	20%
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	No Restriction
AAA Rated Fixed Rate Structured Securities	20%
AAA Rated Floating Rate Structured Securities	No Restriction
Credit Card Collateral	75%
Auto Collateral	75%
Student Loan Collateral	75%
Any Other Individual Structured Collateral	50%
Sector	
Any One Corporate Sector	15%
Total Yankee Sovereign Sector	15%
Total Corporate/Yankee Sovereign	50%
Money Market Securities	
> = A1/P1	No Restriction
< A1/P1 (next business day maturity)	50%
< A1/P1	25%

6. ~~Credit Risk is the uncertainty surrounding the borrower's ability to repay its obligations. Credit risk shall be actively managed on a risk/return basis. Credit Risk will be controlled by requiring minimum ratings by asset type, outlined in the table below.~~ A downgrading of a security, which causes a violation in the guidelines, shall not require an immediate sale if the Senior Investment Officer, of Global Fixed Income believes that no further risk of credit deterioration exists or the sale diminishes the total return to CalPERSthe System. The CalPERS internal research ~~Staff~~ and the external rating agencies

shall analyze such situations to ensure that an informed decision is made. The following is the minimum quality for each of the sectors.

Asset / Counterparty	Minimum Credit Rating
US Treasury & Govt. Sponsored	AAA
Repurchase Agreements	A1/P1
Structured Securities	AAA
Money Market Securities	A2/P2
Corporate Securities	Baa1/BBB+
Yankee Sovereign Securities	A3/A-

7. ~~Structure Risk arises from the options implicit in bonds (e.g., callable and optional sinking fund bonds) or the rules governing cash flow that differs from expectations. Structure Risk shall must be managed using option-adjusted and scenario analysis.~~
8. ~~Reinvestment Risk is the uncertain future yield opportunities for investing funds that become available due to call, maturity, or coupon payments. Reinvestment Risk shall must be managed through eCall Risk and cash flow analysis.~~
9. ~~Liquidity risk is the ease with which an issue or specified amount can be sold at or near prevailing market prices. Considering Liquidity Risk is reduced due to the requirement of the HQL FundProgram's mandate as a liquid, limited duration fundprogram, and high liquidity is a major requirement.~~
10. ~~Currency Risk is the price volatility emanating from the value of the U.S. dollar relative to other currencies of the world. To reduce this risk, Currency Risk is reduced by requiring all securities shall to be denominated in U.S. dollars.~~

C. Restrictions and Prohibitions

1. Except for U.S. Treasuries and Agencies, investments in a AAA-rated single issuer with a maturity that exceeds one business day shall not exceed 10% of the HQL FundProgram during the holding period for such investment. Exceptions to this restriction are 2a-7 money market funds, State Street Bank's STIF, and repurchase agreements

(See Section ~~VII~~. B. 5.) For structured securities, each separate trust (pool of assets) is defined as a separate issuer.

2. Investments in any non-AAA rated single issuer with a maturity that exceeds one business day shall not exceed 5% of the HQL ~~Fund~~Program during the holding period for such investment.
3. The ~~Option~~-adjusted duration of the HQL ~~Fund~~Program shall not exceed 90 days.
4. Non-investment grade securities are prohibited.
5. Collateralized Bond Obligation (CBO) and Collateralized Loan Obligation (CLO) investments are prohibited.
6. Tobacco company investments are prohibited.
7. Privately Placed Investment Grade Corporate Bonds are prohibited.
8. Collateralized Mortgage Obligations (CMO) are prohibited.
9. Adjustable rate securities, which are not allowed, include, but are not limited to, the following:
 - a. "Inverse floaters," "leveraged floaters" and any securities whose interest rate reset provisions are based on a formula that magnifies changes in interest rates.
 - b. "Constant Maturity Treasury (CMT) floaters" and securities whose interest rate reset provisions are tied to long-term interest rates so that a change in the slope of the yield curve could result in the value of the instrument falling below par.
 - c. "Dual ~~i~~Index ~~f~~Floaters" and securities whose interest reset provisions are tied to more than one index so that a change in the relationship between these ~~indices~~indexes may result in the value of the instrument falling below par.
 - d. "Cost of Funds Index (COFI) floaters," "prime floaters," and securities whose interest rate reset provision is tied to an index materially lagging short-term interest rates.

D. Authorized Securities

1. U.S. Treasury and Government Sponsored Securities (including derivative securities whose deliverable instrument is a U.S. Treasury

or government obligation) excluding mortgages and [mortgage-backed securities \(MBS\)](#).

2. Money market instruments, including obligations of the U.S. Government and its agencies, and domestic money market instruments ([Commercial Paper](#), bank time deposits, [Certificates of Deposit](#), and [Banker's Acceptances](#)). Non-domestically domiciled money market issuers must be domiciled in countries defined in the Master Glossary under Yankee Sovereign.
3. Repurchase Agreements and [Tri-Party Repurchase Agreements](#) (repos and tri-party repos) collateralized at 102% by debt obligations of the U.S. Government or its agencies (this does not include mortgage-backed securities). Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by A3/A- or higher rated corporate debt or AAA structured securities or commercial paper with a minimum A1/P1 rating. Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by common stock of companies included in one of the following indices: Nasdaq composite, Russell 3000, or the S&P 500. Individual common stock concentration is limited to 5% per issuer. Repurchase agreements and Tri-Party Repurchase agreements must be [marked-to-market](#) daily. Repurchase agreements and Tri-Party Repurchase agreements must be with counterparties rated at least A1/P1. Mortgage-backed securities are prohibited. Collateral for Tri-party repurchase agreements must be a minimum of \$1 million in size.

Guidelines for Eligible Repo Counterparties can be found in Attachment A3.

4. [Notes](#), [bonds](#), and debentures issued by the U.S. Government and its agencies, U.S. corporations, Canadian, [Supranational](#), and Yankee Sovereign entities subject to the maturity and credit quality limitations specified in this Policy.
5. Money market funds as defined under SEC Regulation 270.2a-7.
6. Structured securities with a minimum [Credit Rating](#) of AAA. Subject to the maturity constraints specified in this Policy.
7. [Floating rate](#) and [variable rate securities](#), subject to maturity, credit quality, and reset limitations specified in this Policy. The HQL Fund Program can invest in adjustable rate securities tied to LIBOR, [Fed Funds](#), Treasury Bills, and Commercial Paper Indices.
8. Derivatives, subject to Section IV.

VI. BENCHMARK

The benchmark for the HQL Fund shall be a Federal Funds based index.

III.VII. CALCULATIONS AND COMPUTATIONS GENERAL

A. Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System's Custodian.

B.A. For securities with periodic principal payments, the weighted-average days to maturity shall must be calculated from the evaluation date to the date of the security's average life.

C.B. The HQL Program portfolio weighted-average days to maturity shall must be calculated from the evaluation date to the date of the next coupon reset for floating rate securities.

IV.VIII. DERIVATIVES AND LEVERAGE POLICY

All transactions involving derivatives and leverage are governed by CalPERS's the California Public Employees' Retirement System Statement of Investment Policy for Development of Derivatives Strategies—Investment Office. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the HQL Fund Program.

A. Financial Futures, Swaps, and Options

1. Short selling of securities is prohibited, except in financial futures (as outlined in Section IV.VIII. A. 4. of this Policy);
2. Leverage is prohibited except futures position where there is an associated cash position (which ~~together~~ effectively creates a synthetic bond);
3. The Staff may buy or sell the following fixed income related derivatives: financial futures including Eurodollar futures, Total Return Swaps, Index Swaps, Credit Default Swaps, Interest Rate Swaps, and over-the-counter options as specified in Section V.D. 1. of this Policy; and
4. Acceptable strategies include bona fide hedges (to help achieve the target durations) and strategies that result in a more efficient method of implementing the investment objectives of the HQL Program Portfolio.

B. Restrictions and Prohibitions

1. Uncovered eCall writing is prohibited.
2. Speculation or arbitrage between two derivatives is prohibited. If a derivative is more attractively priced than the underlying security, the transaction is considered a substitution.

C. Counterparty Exposure for Options, Swaps and Futures

4. Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 (~~S&P~~Standard & Poor's) and at least P1 (Moody's), or rated on a long-term at least A3 (Moody's) and at least A- (~~S&P~~Standard & Poor's). The CalPERS' ~~internal~~ Research Staff shall actively review these brokers.

~~IX. GLOSSARY OF TERMS~~

~~Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.~~

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
DOLLAR-DENOMINATED FIXED INCOME
SHORT DURATION FUND PROGRAM**

February 14, 2006 April 21, 2008

~~This Policy is effective immediately upon adoption and supersedes all previous dollar-denominated fixed income Short Duration fund policies.~~

I. ~~PURPOSE~~

~~This document sets forth the investment policy ("the Policy") for Dollar Denominated Fixed Income Program ("the Program"), Short Duration Fund ("the SDF"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of the market.~~

II. ~~STRATEGIC OBJECTIVE~~

~~Achieving the highest total rate of return possible, consistent with a prudent level of risk and the liabilities of the System is the strategic objective of the Program. The principal functional objective of the SDF is to provide total rates of return in excess of the benchmark while maintaining prudent levels of liquidity.~~

~~The SDF shall be managed to accomplish the following:~~

- ~~A. Diversify the System's overall investment Program;~~
- ~~B. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law;~~
- ~~C. Provide stable limited duration returns.~~
- ~~D. Enhance the System's total return.~~

~~III. RESPONSIBILITIES AND DELEGATIONS~~

~~A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy. The Investment Committee delegates the responsibility for administering the Program to the Investment Staff through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).~~

~~B. The **System's Investment Staff's** ("the Staff") duties include, but are not limited to, the following:~~

~~1. Developing and recommending the Policy to the Investment Committee;~~

~~2. Developing and maintaining a procedures manual, subject to periodic reviews and updates, outlining Staff operational procedures used in implementing this Policy;~~

~~3. Implementing and adhering to the Policy;~~

~~4. Auditing the securities trading activities of portfolio managers and traders by the Senior Investment Officer, Fixed Income;~~

~~5. Reporting immediately all violations of the Policy to the Chief Investment Officer; the violation reporting process shall be as follows:~~

~~a. The Staff shall report orally, or in writing, all violations immediately to the Senior Investment Officer, Fixed Income.~~

~~b. The Senior Investment Officer, Fixed Income shall immediately report orally, or in writing, any violation verbally to the Chief Investment Officer and the Assistant Executive Officer.~~

~~c. As a follow up to the verbal report, the Staff shall prepare a written report of any violation within a time period not exceeding 30 days.~~

~~d. The Chief Investment Officer shall determine the appropriate means of further reporting based on his or her judgment of the magnitude, sensitivity and severity of the violation.~~

~~e. All violations shall be reported to the Investment Committee as part of a quarterly report agenda item on the Investment Committee's regular agenda. The report shall coincide with~~

~~the regular quarterly reports of the CalPERS general pension consultant.~~

~~f. Depending on the violation, and at the discretion of the Chief Investment Officer, reporting may also be made to the Investment Committee. The report may be made as a separate agenda item or as a portion of the Chief Investment Officer's Report at the next scheduled Investment Committee meeting.~~

~~6. Purchasing only securities outlined in the Policy; and~~

~~7. Reporting to the System's Investment Committee at least quarterly about the following issues:~~

~~a. Portfolio duration;~~

~~b. Sector weightings;~~

~~c. Fixed and floating rate breakout;~~

~~d. Security rating scales (e.g. AAA%, AA%);~~

~~e. An exceptions report that covers Policy violations~~

~~8. Reporting internally to senior management concerning the implementation of this Policy. This report shall be prepared monthly to include, but is not limited to, the following areas:~~

~~a. Current market value and allocations by sector;~~

~~b. Aggregate and individual portfolio characteristics and risks (including duration) compared to guidelines; and~~

~~c. An exception report covering delinquencies, defaults, and deteriorating credits.~~

~~9. Reporting to the Investment Committee on the performance of the Program as needed and monitoring implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of the Policy immediately, and in writing, to the Investment Committee, along with an explanation and appropriate recommendation for corrective action.~~

~~C. The **General Pension Consultant** is responsible for monitoring, evaluating, and reporting to the Investment Committee, at least quarterly, about the~~

~~internally and externally managed fixed income performance relative to the benchmark and Policy guidelines.~~

I.V. **PERFORMANCE OBJECTIVE AND BENCHMARK**

The performance objective of the Dollar-Denominated Fixed Income Short Duration Program ("SD Program") is to ~~Moderately exceed~~ the return of a Federal Funds based index while maintaining a high level of diversification and prudent liquidity.

II.V. **INVESTMENT APPROACHES AND PARAMETERS**

A. Investment Approach

Identifying opportunities across limited duration bond market sectors and investing where risks are both understood and manageable while maintaining credit quality, duration, convexity, and liquidity as specified in this Policy is the investment approach of the Short Duration Program~~SDF~~. Given the mandate for the SDF Program to be a medium liquidity, total rate of return ~~fund~~program, measured versus a Federal Funds based benchmark, it is expected that AAA rated ~~f~~Floating ~~r~~Rate ~~s~~Securities will represent a majority of the ~~fund's~~ SD Program holdings.

B. Specific Risk Parameters

CalPERS~~The System~~ shall manage the following major categories of fixed income risk:

1. Benchmark Risk was reviewed by the Consultant who determined that the Federal Funds based index was the appropriate reference point. ~~addresses whether a Federal Funds based index is the appropriate reference point for the SDF.~~
2. Interest Rate Risk is the price volatility produced by changes in the overall level of interest rates as measured by an option-adjusted duration. Duration shall be maintained at a level that does not ~~Interest Rate Risk must be controlled by limiting the SD Program's duration to not exceed 180 days and by limiting duration by the asset type through the table below.~~ Decisions shall be managed in a controlled manner using historical real return relationships and economic analysis.

Maturity and Duration Constraints

Asset	Floating Rate Maturity Limits	Fixed Rate Maturity Limits
US Treasury & Govt. Sponsored		2 years
Repurchase Agreements		
US Treasury/Agency Collateral	3 months	
Non US Treasury/Agency Collateral	1 month	
AAA Rated Structured Securities	7 year WAL	2 year WAL
Non-AAA Rated Structured Securities	5 year WAL	18 month WAL
<i>Note: Mortgage-backed securities maximum WAL calculation to be run at 100 PSA</i>		
Money Market Securities		
> = A1/P1		270 days
< A1/P1		90 days
Corporate & Yankee Sovereign (AAA rated)	5 Years	2 years
Corporate & Yankee Sovereign (less than AAA rated)	4 Years	8 months

3. ~~Yield Curve Risk is the price changes induced by the changing slope of the yield curve.~~ Yield Curve Risk shall must be managed in a controlled, disciplined fashion by employing break-even, economic analysis, partial duration, and principal component analysis.
4. ~~Convexity Risk is the downside risk of an equal move up or down in interest rates, causing greater price loss than price gain.~~ Convexity Risk shall must be managed using option-adjusted and scenario analyses.
5. Sector Risk and Asset Risk ~~is the risk of holding sectors and assets proportionally different from the Index~~ will be controlled using the table below. Based on the economic outlook, historical factors, and break-even analysis, Staff shall estimate the impact on various sectors' and assets' spreads and make allocations accordingly.

Asset and Sector Diversification

Asset / Counterparty	Diversification Limits
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	25%
AAA Rated Structured Securities	
Less than or = 1.5 year WAL	15%
Greater than 1.5 year WAL	10%
Non-AAA Rated Structured Securities	5%
Corporate & Yankee Sovereign (AAA rated)	10%
Corporate & Yankee Sovereign (less than AAA rated)	5%
Money Market Securities	
> = A1/P1 (next business day maturity)	15%
> = A1/P1	10%
< A1/P1 (next business day maturity)	10%
< A1/P1	5%

Sector	Sector Limits
Floating Rate	No Restriction
Fixed Rate (greater than 35 day WAL)	35%
Non-AAA Rated Securities	50%
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	No Restriction
AAA Rated Structured Securities	No Restriction
Credit Card Collateral	75%
Auto Collateral	75%
Student Loan Collateral	75%
Home Equity Loan Collateral	75%
Any Other Individual Structured Collateral Sector	50%
Non-AAA Rated Structured Securities	
Each Sector (e.g., credit card, auto)	20%
Any One <u>Corporate Sector</u>	15%
Total Yankee Sovereign Sector	15%
Total Corporate/Yankee Sovereign	50%
Money Market Securities	
> = A1/P1	No Restriction
< A1/P1 (next business day maturity)	50%
< A1/P1	25%

6. ~~Credit Risk is the uncertainty surrounding the borrower's ability to repay its obligations. Credit Risk will be controlled by requiring minimum ratings by asset type as outlined in the table below. Credit~~ Risk shall be actively managed on a risk/return basis. A downgrading of a security, which causes a violation in the guidelines, shall not require an immediate sale if the Senior Investment Officer, of Global Fixed Income believes that no further risk of credit deterioration exists or the sale diminishes the total return to CalPERS the System. The CalPERS internal research staff and the

external rating agencies shall analyze such situations to ensure that an informed decision is made. The following is the minimum quality for each of the sectors.

Asset / Counterparty	Minimum Credit Rating
US Treasury & Govt. Sponsored	AAA
Repurchase Agreements	A1/P1
Structured Securities	Baa2 or BBB
Money Market Securities	A2/P2
Corporate Securities	Baa1/BBB+
Yankee Sovereign Securities	A3/A-

7. ~~Structure Risk arises from the options implicit in bonds (e.g., callable and optional sinking fund bonds) or the rules governing cash flow that differs from expectations. Structure Risk shall must be managed using option-adjusted and scenario analysis.~~
8. ~~Reinvestment Risk is the uncertain future yield opportunities for investing funds that become available due to call, maturity, or coupon payments. Reinvestment Risk shall must be managed through call risk and cash flow analysis.~~
9. ~~Liquidity risk is the ease with which an issue or specified amount can be sold at or near prevailing market prices. Considering Liquidity Risk is reduced through the SDF Program's mandate as a limited duration fund program that will provide prudent liquidity, liquidity is a relevant requirement for the SDF.~~
10. ~~Currency Risk is the price volatility emanating from the value of the U.S. dollar relative to other currencies of the world. To reduce this risk, Currency Risk is reduced by requiring all securities shall to be denominated in U.S. dollars.~~

C. Restrictions and Prohibitions

1. Except for U.S. Treasuries and Agencies, investments in a AAA-rated single issuer with a maturity that exceeds one business day shall not exceed 10% of the SDF Program during the holding period for such investment. Exceptions to this restriction are 2a-7 money market

funds, State Street Bank's STIF, repurchase agreements and structured securities that have average lives less than or equal to 1.5 years— (See ~~Section VII. B. 5.~~) For structured securities, each separate trust (pool of assets) is defined as a separate issuer.

2. Investments in any non-AAA rated single issuer with a maturity that exceeds one business day shall not exceed 5% of the SDF Program during the holding period for such investment. For structured securities, each separate trust (pool of assets) is defined as a separate issuer.
3. The ~~Option~~-adjusted duration of the SDF Program must not exceed 180 days.
4. Non-investment grade securities are prohibited.
5. Tobacco company investments are prohibited.
6. Privately Placed Investment Grade Corporate Bonds are prohibited.
7. Adjustable rate securities, which are not allowed include, but are not limited to, the following:
 - a. "Inverse floaters," "leveraged floaters" and any securities whose interest rate reset provisions are based on a formula that magnifies changes in interest rates.
 - b. "Constant Maturity Treasury (CMT) floaters" and securities whose interest rate reset provisions are tied to long-term interest rates so that a change in the slope of the yield curve could result in the value of the instrument falling below par.
 - c. "Dual ~~i~~Index ~~f~~Floaters" and securities whose interest reset provisions are tied to more than one index so that a change in the relationship between these ~~indices~~ may result in the value of the instrument falling below par.
 - d. "Cost of Funds Index (COFI) floaters," and securities whose interest rate reset provision is tied to an index materially lagging short-term interest rates.

D. Authorized Securities

1. U.S. Treasury and Government Sponsored Securities (including derivative securities whose deliverable instrument is a U.S. Treasury

or government obligation) excluding mortgages and mortgage-backed securities (MBS).

2. Money market instruments, including obligations of the U.S. Government and its agencies, and domestic money market instruments (~~e~~Commercial ~~p~~Paper, bank time deposits, ~~e~~Certificates of ~~d~~Deposit, and ~~b~~Banker's ~~a~~Acceptances). Non-domestically domiciled money market issuers must be domiciled in countries defined in the Master Glossary under Yankee Sovereign.
3. Repurchase Agreements and Tri-Party Repurchase Agreements (repos and tri-party repos) collateralized at 102% by debt obligations of the U.S. Government or its agencies (this does not include mortgage-backed securities). Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by A3/A- or higher rated corporate debt or AAA structured securities or commercial paper with a minimum A1/P1 rating. Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by common stock of companies included in one of the following indices: Nasdaq composite, Russell 3000, or the S&P 500. Individual common stock concentration is limited to 5% per issuer. Repurchase agreements and Tri-Party Repurchase agreements must be marked-to-market daily. Repurchase agreements and Tri-Party Repurchase agreements must be with counterparties rated at least A1/P1. Mortgage-backed securities are prohibited. Collateral for Tri-party repurchase agreements must be a minimum of \$1 million in size.

Guidelines for Eligible Repo Counterparties can be found in Attachment A3.

4. Notes, bonds, and debentures issued by the U.S. Government and its agencies, U.S. corporations, Canadian, supranational, and Yankee Sovereign entities subject to the maturity and credit quality limitations specified in this ~~p~~Policy.
5. Money market funds as defined under SEC Regulation 270.2a-7.
6. Structured securities with a minimum credit rating of Baa2/BBB. Subject to the maturity constraints detailed in this ~~p~~Policy.
7. Floating rate and variable rate securities, subject to maturity, credit quality, and reset limitations specified in this ~~p~~Policy. The SDF Program can invest in adjustable rate securities tied to LIBOR, Fed Funds, Treasury Bills, and Commercial Paper Indices.

8. [Participation shares in CalPERS construction loan program](#) with BRIDGE Housing Corporation.
9. CalPERS Asset-Based Loan (ABL) program investments.
10. Derivatives, subject to the requirements of Section IV.

~~VI.~~ BENCHMARK

~~The benchmark for the SDF shall be a Federal Funds based index.~~

~~III.VII. CALCULATIONS AND COMPUTATIONS~~GENERAL

~~A. Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System's Custodian.~~

~~B.A. For securities with periodic principal payments, the weighted-average days to maturity shall must be calculated from the evaluation date to the date of the security's average life.~~

~~C.B. The SD Program portfolio weighted-average days to maturity shall must be calculated from the evaluation date to the date of the next coupon reset for floating rate securities.~~

~~IV.VIII.~~ DERIVATIVES AND LEVERAGE POLICY

~~All transactions involving derivatives and leverage are governed by CalPERS'the California Public Employees' Retirement System Statement of Investment Policy for Development of Derivatives Strategies—Investment Office. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the SDF Program.~~

A. Financial Futures, Swaps, and Options

1. Short selling of securities is prohibited, except in financial futures (as outlined in Section ~~VIII~~IV. A. 4. ~~of this Policy~~);
2. Leverage is prohibited except futures position where there is an associated cash position (which ~~together~~ effectively creates a synthetic bond);
3. ~~The~~ Staff may buy or sell the following fixed income related derivatives: financial futures including Eurodollar futures, Total Return Swaps, Index Swaps, Credit Default Swaps, Interest

~~Rate S~~swaps, and over-the-counter options as specified in Section
V. D. 1. of this Policy; and

4. Acceptable strategies include bona fide hedges (to help achieve the target durations) and strategies that result in a more efficient method of implementing the investment objectives of the SD Program~~Portfolio~~.

B. Restrictions and Prohibitions

1. Uncovered eCall writing is prohibited.
2. Speculation or arbitrage between two derivatives is prohibited. If a derivative is more attractively priced than the underlying security, the transaction is considered a substitution.

C. Counterparty Exposure for Options, Swaps and Futures

- 1.——Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 (~~S&P~~Standard & Poor's) and at least P1 (Moody's), or rated on a long-term basis at least A3 (Moody's) and at least A- (~~S&P~~Standard & Poor's). ~~The CalPERS' Internal Research Staff~~ shall actively review these brokers.

~~IX. GLOSSARY OF TERMS~~

~~Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.~~

Limited Duration Investment Fund Characteristics

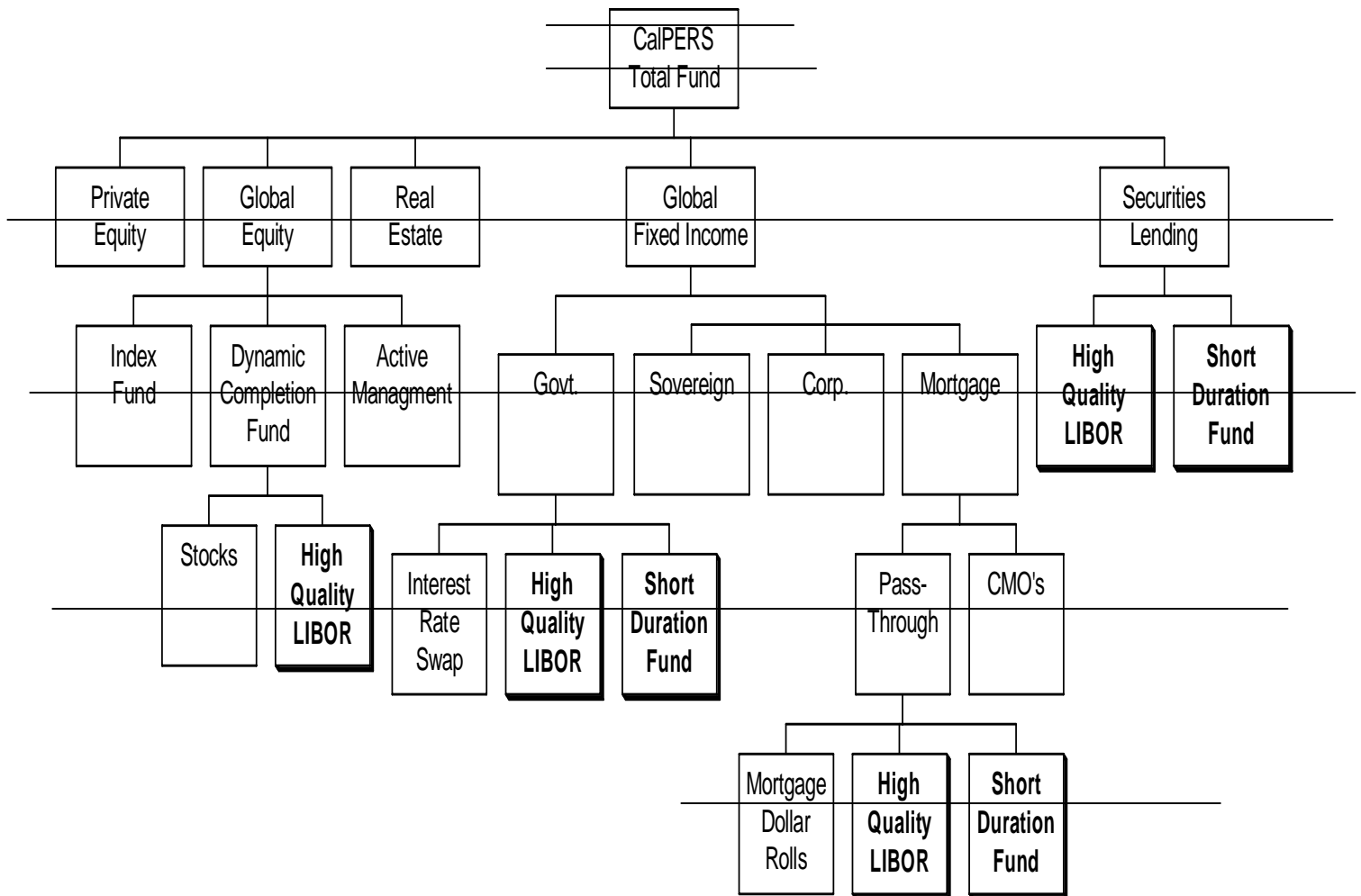
Although both funds are designed to be limited duration in nature, the two investment funds differ in their targeted investment horizon, portfolio objectives, and expected fund participants. While the HQL fund is an appropriate investment for numerous CalPERS sub-strategies, the SDF is designed to be a slightly more aggressively managed limited duration fund for participants having a longer investment horizon that allows for higher monthly return volatility in exchange for higher expected long-term alpha. For instance, the SDF is viewed as an appropriate investment for the “core” portion of the securities lending assets.

Given the different investment time horizons, fund objectives, and expected fund participants, the investment policies that govern the two funds do have some major policy differences and multiple minor differences.

The following table summarizes the basic fund characteristics.

	High Quality LIBOR	Short Duration Fund
Investment Horizon	Less than 30 days	6 – 12 months
Objective	Medium / High Liquidity Capital Preservation Total Rate of Return	Medium Liquidity Total Rate of Return
Participants	Global Fixed Income Domestic Equity Securities Lending	Securities Lending
Liquidity Requirement	High	Medium
Portfolio Duration Constraint	90 Days Max	180 Days Max
WAL Constraint		
Fixed Rate Securities	90 Days	2 years
AAA-Rated Floating Rate Securities	5 Years	7 Years
Minimum Credit Quality		
Structured Securities	AAA	BBB

SHORT DURATION FUNDS COMPARISON



ELIGIBLE REPO COUNTERPARTIES
Effective September 14, 2006

Repo counterparties may include the following:

1. Any bank or broker/dealer explicitly rated A1/P1/F1 by at least two of the three rating agencies. In the case of split ratings, measure against the lowest of the three ratings.
2. Any bank branch whose parent is rated A1/P1/F1 (by at least two out of the three agencies).
3. Any subsidiary of a parent entity rated A1/P1/F1 carrying a guarantee of the parent.
4. If an entity is not explicitly rated, is not a bank branch, and does not carry a parental guaranty, then the entity must be a Primary Government Securities Dealer (as listed on the Federal Reserve Bank of New York's Primary Dealer List located at: http://www.ny.frb.org/markets/pridealers_current.html).

_____ and

=
_____ The parent entity must be rated A1/P1/F1 by two of the three rating
_____ agencies.

In all cases, ratings must be issued by two out of the three agencies; in the case of split ratings, measure against the lowest of the three ratings.

SPECIFIC REPO COUNTERPARTIES

Eligible Counterparties include the names listed below. These may be amended at any time provided they comply with above guidelines.

	<u>Explicit Rating</u>	<u>Primary Dealer</u>	<u>Parent Rating</u>
<u>Banc of America Securities, LLC.</u>	<u>A1+/P1</u>	<u>Yes</u>	<u>A1+/P-1</u>
<u>Barclays Capital Inc.</u>	<u>No</u>	<u>Yes</u>	<u>A1+/P1</u>
<u>BNP Paribas Securities Corp.</u>	<u>No</u>	<u>Yes</u>	<u>A1+/P-1</u>
<u>Citigroup Global Markets Inc.</u>	<u>A1+/P1</u>	<u>Yes</u>	<u>A1+/P-1</u>
<u>Credit Suisse Securities (USA) LLC</u>	<u>No</u>	<u>Yes</u>	<u>A1+/P1</u>
<u>Deutsche Bank Securities Inc.</u>	<u>P1</u>	<u>Yes</u>	<u>A1+/P-1</u>
<u>Dresdner Kleinwort Wasserstein Securities LLC</u>	<u>No</u>	<u>Yes</u>	<u>A-1/P-1</u>
<u>Goldman, Sachs & Company</u>	<u>A1+/P-1</u>	<u>Yes</u>	<u>A-1+/P1</u>
<u>HSBC Securities (USA) Inc.</u>	<u>No</u>	<u>Yes</u>	<u>A-1+/P1</u>
<u>JP Morgan Securities Inc.</u>	<u>No</u>	<u>Yes</u>	<u>A-1+/P1</u>
<u>Lehman Brothers, Inc.</u>	<u>A1+/P-1</u>	<u>Yes</u>	<u>A1/P1</u>
<u>Merrill Lynch Government Securities Inc.</u>	<u>No</u>	<u>Yes</u>	<u>A1/P1</u>
<u>Morgan Stanley & Co. Incorporated</u>	<u>No</u>	<u>Yes</u>	<u>A1+*/P1</u>
<u>RBS/Greenwich Capital Markets, Inc.</u>	<u>No</u>	<u>Yes</u>	<u>A1+/P-1</u>
<u>UBS Securities LLC</u>	<u>A1+</u>	<u>Yes</u>	<u>A1+/P-1</u>

As of March 30, 2008

*Morgan Stanley S&P A-1+ rating is on negative watch

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
INTERNALLY MANAGED DOLLAR-DENOMINATED SHORT-TERM PROGRAM—
INTERNALLY MANAGED**

August 16, 2004-April 21, 2008

~~This Policy is effective immediately upon adoption and supersedes all previous internally managed dollar-denominated short-term fund investment policies.~~

I. PURPOSE

~~This document sets forth the investment policy ("the Policy") for the Internally Managed Dollar Denominated Short-term Fund Investment Program ("the Program"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling risks and capturing returns associated with this segment of the market.~~

II. STRATEGIC OBJECTIVE

~~Ensuring that the System has liquidity adequate to meet its projected cash flow needs, while at the same time keeping its cash balances (including those managed for the System's external managers) fully invested, so as to achieve the highest total rate of return possible consistent with a prudent level of risk, is the strategic objective of the Program. The Program shall be managed to exceed the total rate of return of the State Street Bank Short Term Investment Fund (SSB-STIF) while maintaining a high level of liquidity and diversification.~~

~~The Program shall be managed to accomplish the following:~~

~~A. Provide liquidity to the System;~~

~~B. Enhance the System's total rate of return by ensuring that all cash balances are fully invested at all times until they are needed by the System; and~~

~~C. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law. [This language is now contained in the Total Fund Statement of Investment Policy]~~

III. RESPONSIBILITIES AND DELEGATIONS

~~A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy and delegates the responsibility for administering the Program to the Investment Staff through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).~~

~~B. The **System's Investment Staff's** ("the Staff") duties include, but are not limited to, the following:~~

~~1. Developing and recommending the Policy to the Investment Committee;~~

~~2. Maintaining a procedures manual which is subject to periodic review and updating that outlines staff operational procedures used in implementing this Policy;~~

~~3. Implementing and adhering to the Policy;~~

~~4. Reporting immediately to the Investment Committee all violations of the Policy with explanations and recommendations;~~

~~5. Purchasing only securities permitted in the Policy; and~~

~~6. Reporting to the Investment Committee at least quarterly concerning the following:~~

~~a. Weighted-average days to maturity;~~

~~b. Portfolio allocation by asset type and ratings; and~~

~~c. An exceptions report that covers Policy violations.~~

~~7. Reporting internally to senior management concerning the implementation of this Policy. The Staff shall prepare this report monthly, with information to include, but is not limited to following issues:~~

~~a. Weighted-average days to maturity;~~

~~b. Portfolio allocation by asset type and ratings; and~~

~~c. An exceptions report that covers Policy violations.~~

~~C. The **General Pension Consultant** is responsible for monitoring, evaluating, and reporting to the Investment Committee, at least quarterly, the performance relative to the benchmark and Policy guidelines. The General Pension Consultant is responsible for reporting non-compliance in accordance with~~

~~its responsibilities under its contract with the System. Monitoring shall include placing the Manager on Watchlist or Probation Status using the following criteria:~~

- ~~1. **Watchlist Status: Placement on Watchlist Status will occur during** a period of two consecutive quarters, when the manager's "value relative ratio" is between ninety-five percent (95%) and ninety-eight percent (98%).~~

~~The "value relative ratio" depicts the Portfolio as a percentage of the benchmark. When the benchmark and the portfolio are equal, the ratio is 1.00 (one). At a ratio of 1.00, the manager is not adding value over an indexed portfolio represented by the benchmark. When the portfolio return is below (above) the benchmark, the ratio is less (greater) than 1.00.~~

- ~~2. **Probation Status: Placement on Probation Status will occur when** the Manager's "value relative ratio" is 95% or less for two quarters. If the Manager is already on Watchlist, then one quarter of a 95% or less "value relative ratio" would replace the Manager on Probation.~~

I. PERFORMANCE OBJECTIVE AND BENCHMARK

The performance objective for the Dollar-Denominated Short-Term Program ("ST Program") is to exceed the benchmark which is the total rate of return of the State Street Bank Short-Term Investment Fund ("SSB STIF") after investment management fees.

II.IV. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approach

The goals of the ST Program are to provide liquidity to CalPERS~~the System~~ and to maximize investment returns at a prudent level of risk. The investment approach is to identify opportunities in the short end of the yield curve and invest where risks are understood and manageable, while maintaining liquidity, credit quality, weighted-average days to maturity, and diversification as specified in this Policy.

To ensure liquidity, all ST Program investment transactions shall be made in conjunction with CalPERS~~the System's~~ projected cash flow needs ~~(see Investment Policy Manual Section XIII, A, 1,c).~~

B. Specific Risk Parameters

~~CalPERS~~The System shall manage the following major categories of short-term risk:

1. ~~Benchmark Risk was reviewed by the Consultant who determined that the addresses whether the SSB STIF is the appropriate reference point for the ST Program.~~
2. ~~Liquidity risk is the ease with which a security can be sold at or near prevailing market prices. Liquidity Risk must~~shall be managed within the context of ~~CalPERS~~the System's projected cash flow needs.
3. ~~Interest rate risk is the price volatility produced by changes in the overall level of interest rates as measured by a fund's weighted-average days to maturity. Decisions~~Interest Rate Risk shall~~must~~ be managed in a controlled manner using [economic analysis](#), [Federal Open Market Committee](#) analysis, and projected cash flow requirements of ~~CalPERS~~the System. All securities purchased shall have a maximum final stated maturity of 15 months **except** for the following securities:
 - a. [Callable securities](#) having a high probability of being "called" as projected using [option-adjusted](#) and [scenario analysis](#). Callable securities shall have a maximum anticipated time ~~maturity~~ to call of 12 months.
 - b. Fixed rate [asset-backed securities](#) shall have a maximum projected [average life](#) of 15 months and a final stated maturity that does not exceed ~~five~~5 years.
 - c. Floating rate asset-backed securities shall have a maximum projected average life of 3 years and a final stated maturity that does not exceed ~~five~~5 years.
 - d. [Corporate](#) and U.S. Government [Agency floating rate securities](#) shall have a final stated maturity not exceeding ~~three~~3 years.
 - e. Securities with short-term [ratings](#) that are split-rated shall have a maximum final stated maturity of 120 days (including floating rate securities).
 - f. Securities rated A2/P2 shall have a maximum final stated maturity of 75 days (including floating rate securities).

- g. [Deliveries versus payment repurchase agreements](#) (DVP Repo) are limited to a maximum of 14 days from the trade date to the date of repurchase.
 - h. Investments in short-term obligations of issuers domiciled outside the United States shall have a maximum final stated maturity of 120 days.
4. ~~Yield curve risk~~ is the price change induced by the changing slope of the yield curve. ~~Yield eCurve rRisk must~~ shall be managed in a controlled, disciplined fashion by employing [break-even](#) and economic analysis.
5. ~~Credit risk~~ is the uncertainty surrounding the borrower's ability to repay its obligations. ~~Credit rRisk must~~ shall be managed with a goal of zero [defaults](#). A down-grading of a security, which causes a violation of the Policy, shall not require an immediate sale if the Senior Principal Investment Officer of Global Fixed Income believes that no further risk of credit deterioration exists, or that the sale diminishes the total rate of return to CalPERS the System. The CalPERS' internal research staff and the external rating agencies shall be utilized in analyzing such situations to ensure that an informed decision is made. The following are minimum credit quality standards for each of the sectors:
- a. U.S. Treasury & U.S. Government Agency securities shall have a credit quality rating of AAA.
 - b. Asset-backed securities must be in the highest rating category for short-term debt obligations (A1+/P1 or A1/P1) or rated on a long-term debt obligation basis by [Moody's](#) (Aaa) and S&P Standard & Poor's (AAA).
 - c. Broker/dealer securities must be in the highest rating category for short-term debt obligations (A1+/P1 or A1/P1).
 - d. Domestic [money market securities](#) must be in one of the two highest rating categories for short-term debt obligations (A2/P2 or higher). If the security is only rated by one of the credit agencies (~~S&P Standard & Poor's~~ or Moody's) then the security must be in the highest rating category for short-term debt obligations (A1+, A1 or P1). All corporate issuers with a short-term rating below A1/P1 shall be monitored by the CalPERS internal research staff annually or as events warrant.

- e. Domestic corporate securities ([bonds](#), [notes](#), [medium term notes](#), and floating rate securities) without a short-term debt obligation rating must have a minimum long-term debt obligation rating by Moody's of A2 and by ~~S&P~~~~Standard & Poor's~~ of A.
- f. Investments in U.S. Dollar bonds and money market securities issued in the United States by foreign borrowers ([Yankee](#)) or U.S. Dollar bonds and money market securities issued outside the United States by domestic or foreign borrowers ([Eurodollar](#)) must be debt obligations of companies located in a country with a long-term sovereign rating by Moody's of Aa3 (or higher) and by ~~S&P~~~~Standard & Poor's~~ AA- (or higher) and have a short-term rating of A1/P1 (or higher).
- 6. ~~Structure risk~~ arises from the options implicit in bonds (like callable and optional sinking fund bonds) or the rules governing cash flow that cause actual cash flows to differ from projected cash flows. ~~Structure~~ rRisk shall must be managed using option adjusted and scenario analysis.
- 7. ~~Reinvestment risk~~ is the uncertainty concerning future yield opportunities and the reinvestment of funds that become available due to call, maturity, or coupon payments. ~~Reinvestment~~ rRisk shall must be managed through [call risk](#) and cash flow analysis.

C. ~~Permissible~~ Authorized Securities

- 1. U.S. Treasury and U.S. Government Agencies including U.S. Treasury strips;
- 2. Publicly traded domestic corporate bonds, notes, and medium term notes;
- 3. Asset-backed securities collateralized by credit cards, automobile loans, or leases and agricultural equipment;
- 4. Publicly and [privately traded domestic money market securities](#);
- 5. Floating rate securities tied to [LIBOR](#), [Fed Funds](#), Treasury bills and [commercial paper](#) indices;
- 6. State Street Bank Short Term Investment Fund (STIF);
- 7. DVP Repos;

8. Broker/Dealer Securities;
9. U.S. Dollar bonds and money market securities issued in the United States by foreign borrowers (Yankee); and
10. U.S. Dollar bonds and money market securities issued outside the United States by domestic or foreign borrowers (Eurodollar).

D. Restrictions and Prohibitions

1. Investments in a single [issuer](#) (including parent, subsidiary and guaranteed debt) whose securities are rated A1+/P1 or A1/P1, shall not exceed 10% of the ST Program over the holding period for such investments. However, holdings in such issuers with maturities in excess of 7 days shall not exceed 5% of the ST Program. For asset-backed securities, each separate trust (pool of assets) is defined as a separate issuer.
2. Investments in a single issuer (including parent, subsidiary and guaranteed debt) whose securities are [split-rated](#) (A2/P1 or A1/P2), shall not exceed 6% of the ST Program over the holding period for such investments. However, holdings in such issuers with maturities exceeding 7 days shall not exceed 3% of the ST Program.
3. Investments in a single issuer (including parent, subsidiary and guaranteed debt) whose securities are rated A2/P2, shall not exceed 4% of the ST Program over the holding period for such investments. However, holdings in such issuers with maturities exceeding 7 days shall not exceed 2% of the ST Program.
4. Aggregate investments in securities split-rated or A2/P2 shall not exceed 30% of the ST Program over the holding period for such investments.
5. Aggregate investments in floating rate securities shall not exceed 50% of the ST Program over the holding period for such investments.
6. Aggregate investments in fixed rate asset-backed securities shall not exceed 25% of the ST Program over the holding period for such investments.
7. Aggregate investments in DVP Repos with maturities exceeding the next business day shall not exceed 20% of the ST Program.
8. [Tri-party repurchase agreements](#) are prohibited.

9. Non-dollar denominated securities are prohibited.
10. [Collateralized mortgage obligations](#) and [mortgage-backed securities](#) are prohibited.
11. Financial [futures](#) and [options](#) are prohibited.

E. Counterparty Exposure for DVP Repos

1. The lesser of \$200 million or ~~25%~~ percent of the total ~~ST Program Short-term Fund~~ can be maintained with any one counterparty for DVP Repos.
2. The counterparty must be in the highest rating category for short-term debt obligations (A1+/P1 or A1/P1). Transactions shall be executed with only domestic brokers. The [CalPERS](#) internal research staff shall actively review these brokers.
3. Collateral received on a [repurchase agreement](#) must consist of U.S. Treasury or U.S. Government Agency securities with a maximum final stated maturity of ~~five~~ 5 years. All collateral must be marked-to-market on a daily basis and maintained at 102% of the amount of funds loaned plus accrued interest.

~~V. BENCHMARK~~

~~The benchmark is the total rate of return of the SSB STIF after investment management fees.~~

III.VI. CALCULATIONS AND COMPUTATIONS GENERAL

- A. Calculations and computations shall be on a [mark-to-market](#) or [amortized cost method](#) depending on market convention. Securities for which there are market quotations readily available shall be accounted for utilizing the mark-to-market method. When no market quote is available, the amortized cost method shall be used for determining the securities value.
- B. For securities with periodic principal payments, the weighted-average days to maturity calculation shall be calculated from the [evaluation date](#) to the date of the security's average life.
- C. For floating rate securities, the ~~portfolio program~~ weighted-average days to maturity calculation shall be calculated from the evaluation date to the date of the next coupon reset.

- D. References to short-term [credit ratings](#) shall be presented with S&PStandard & Poor's rating first followed by Moody's (i.e., S&PStandard & Poor's (A1) and Moody's (P1) shall be presented as A1/P1).

~~VII. GLOSSARY OF TERMS~~

~~Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.~~

~~Approved by the Policy Subcommittee: September 27, 1996~~

~~Adopted by the Investment Committee: November 18, 1996~~

~~Revised by the Policy Subcommittee: June 11, 2004~~

~~Adopted by the Investment Committee: August 16, 2004~~

Asset Class Glossary: Fixed Income
Policy: Low Duration Fixed Income Program
April 21, 2008

External Manager

An outside money management firm retained under contract by CalPERS.

General Pension Consultant

An individual or organization that provides specialized professional assistance to the Investment Committee in determining the pension fund's asset allocation model or optimal combination of investments in order to maximize risk-adjusted investment returns in a manner consistent with the State's long-term pension liabilities.

Senior Investment Officer of Global Fixed Income

The Senior Investment Officer is responsible for all Global Fixed Income programs and reports directly to the Chief Investment Officer of CalPERS.

~~Asset Class Glossary: Fixed Income
Policy: Dollar-Denominated Fixed Income Limited Duration Investment
April 21, 2008~~

Adjustable Rate Security

Adjustable Rate Security is a broad description of a fixed income instrument whose rate is determined based on a pre-agreement between two parties. These instruments include floating rate, inverse floaters, leverage floaters and dual index floater securities.

Arbitrage

The simultaneous purchase and sale of two instruments for the purpose of capturing a pricing disparity between them. The instruments do not need correlated price movements.

Asset Risk

Asset Risk is the risk of holding assets proportionally different from the Index.

Authority or Agency

A state or local unit of government created to perform a single activity or a limited group of functions and authorized by the state legislature to issue bonded debt.

Average Life

The average length of time expected to take to retire a debt obligation through amortizing payments, through serial maturity, or sinking funds.

Bankers Acceptance

A draft drawn on a bank ordering payment of a particular sum to a specified party at a

specified future date. Under a prearranged agreement, these drafts are "accepted" by banks, indicating a willingness to make such payments at the stated time.

Benchmark Risk

Benchmark Risk addresses whether the index chosen is the appropriate reference point for the program in question.

Bond

A unit of debt, \$1,000 of principal or par amount. For 200 years municipal bonds were sold in \$1,000 denominations. Since the mid-1970s the minimum bond denomination has been \$5,000; nevertheless, "A Bond" is bought, sold, referred to, and priced as if it were \$1,000.

Break-Even Analysis

Uses results from the scenario analysis. Since all projections should be viewed as risky, evaluating the sensitivity of the projected return to adverse market movements is critical. The break-even analysis calculates the movement required to reduce the sector or portfolio returns to a specified level at some horizon. This analysis creates a form of risk/return ratio. The higher the break-even value, the more the cushion against an adverse movement in rates.

Call Risk Analysis

Examines the portfolio's callable securities and estimates the amount of principal returned for a given drop in interest rates.

Certificate of Deposit

A debt instrument issued by a bank that pays interest on either a fixed or floating rate, periodically or at maturity and principal when it reaches final stated maturity.

~~Chief Investment Officer~~

~~Heads the CALPERS Investment Office and works with the Investment Committee to develop a long-term investment policy and asset allocation strategy for the Public Employees' Retirement Fund.~~

Collateralized Bond Obligation (CBO)

A structured debt security backed by a portfolio consisting of secured or unsecured bonds issued by a variety of corporate and structured finance issuers.

Collateralized Loan Obligation (CLO)

A structured debt security backed by a portfolio consisting of secured or unsecured loans made to a variety of corporate commercial and industrial loan customers of one or more lending banks.

Collateralized Mortgage Obligation

A mortgage-backed security that pools together mortgages and separates the cash flows into short, medium, and long classes (often called tranches), allowing a wider

range of risk and return characteristics than in the more homogeneous pass-through market.

~~Commercial Mortgage Backed Security~~

~~Securities collateralized by assets that are commercial mortgage loans.~~

Commercial Paper

An unsecured promissory note issued in the open market to raise short-term funds representing the obligation of the issuing entity.

Convexity

The price change from a move in interest rate that cannot be explained by duration only. Positive convexity (when price rises more than expected and falls less) comes at a cost (lower yield). Negative convexity (price rises less than expected and falls more) usually comes with higher yield.

Convexity Risk

Convexity Risk is the downside risk of an equal move up or down in interest rates, causing greater price loss than price gain.

Corporate

Securities issued in the U.S. market by U.S. corporations or foreign corporations (Yankee bonds).

Corporate Sector

As defined by CalPERS' corporate investment managers in BlackRock Solutions, Aladdin product. Examples of sectors include banking, independent finance, diversified telecom, etc.

Credit Default Swap

A credit derivative transaction in which two parties enter into an agreement, whereby one party pays the other a fixed periodic coupon for the specified life of the agreement. The other party makes no payments unless a credit event, relating to a predetermined reference asset, occurs. If such an event occurs, the party will then make a payment to the first party, and the swap will terminate. The size of the payment is usually linked to the decline in the reference asset's market value following the determination of the occurrence of a credit event.

Credit Rating

A current opinion of an obligor's overall financial capacity (its creditworthiness) to pay its financial obligations. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. In the case of split ratings, the higher rating of either Moody's, Standard & Poor's, or Fitch Investor Services shall apply.

Credit Risk

Credit Risk is the uncertainty surrounding the borrower's ability to repay its obligations.

Currency Risk

The risk of hedging currency differently than the index.

Custodian

A bank or other financial institution that provides custody of stock certificates and other assets of an institutional investor.

Default

~~Failure to pay in a timely manner principal and/or interest when due, or a Technical Default, the occurrence of an event as stipulated in the Indenture of Trust resulting in an abrogation of that agreement. A Technical Default can be a warning sign that a default on debt service is coming, but in reality actual debt service interruption does not always occur if the problems are resolved in time. A Technical Default will almost always drive down the price of a bond in secondary market trading.~~

Derivative

An instrument whose value is based on the performance of an underlying financial asset, index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, swaps, and options on futures.

Duration

A measure of price sensitivity to interest rate changes. Duration is the anticipated percentage move in price given a 100 basis point (1 percent) move in interest rates.

Economic Analysis

Examines reference points for indications on what to look for and what events are considered significant in the economy to understand relationships among complex and often seemingly unrelated events. This analysis is used in making decisions concerning duration and sector weightings.

Eurodollar Futures

A standardized agreement traded on the Chicago Mercantile Exchange, to buy or sell Eurodollars at a specified price at a date in the future.

Eurodollars

~~Certificates of deposit in U.S. dollars in a bank that is typically located outside the U.S., usually a bank in Europe.~~

Evaluation Date

The targeted date upon which analysis of the portfolio is being performed.

External Manager

~~An outside money management firm retained under contract by CalPERS.~~

Fed Funds

Immediately available funds borrowed by banks from certain other financial institutions and government agencies that are exempt from reserve requirements.

Financial Futures

A contract to trade a financial investment, like a Treasury bond, at a specific price and future date. As interest rates rise or fall, the value of such contract falls or rises respectively.

Floating Rate Notes

Securities that have a coupon or interest rate adjusted whenever a predefined change in interest rate occurs. Typically, floating rate notes coupons are based on a short-term rate index.

Floating Rate Security

A bond whose coupon rate is reset periodically (i.e., daily, weekly, monthly, or quarterly). The coupon rate is tied to one of a variety of indices.

Futures

Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.

General Pension Fund Consultant

~~An individual or organization that provides specialized professional assistance to the CalPERS Board of Administration in determining the pension fund's asset allocation model or optimal combination of investments in order to maximize risk-adjusted investment returns in a manner consistent with the State's long-term pension liabilities.~~

Government Sponsored Securities

Issuer that benefits from sponsorship with or underlying guarantee from a single or multiple sovereign or regional government entity.

Hedge (Hedging)

A strategy used to offset investment risk. A perfect hedge is one eliminating the possibility of future gain or loss.

High Quality LIBOR

A limited-duration, highly liquid, LIBOR-based fund managed by CalPERS staff.

Historical Factors

A review of past relationships and the environment associated with them to assess the relative investment potential of the current market conditions and relationships.

Index Swap

An agreement between two parties to exchange cashflows where the floating side would depend on the return of an index.

Interest Rate Risk

Interest Rate Risk is the price volatility produced by changes in the overall level of interest rates as measured by an option-adjusted duration.

Interest Rate Swaps

Private agreements between two parties to exchange cash flows in the future, according to a prearranged formula.

Inverse Floaters

A derivative instrument with a coupon rate, which cannot go below zero, that moves inversely with an index rate like London Interbank Offer Rate or 11th District Cost of Funds Index, usually with a leverage factor. The higher the leverage factor, the greater the price sensitivity.

Investment Grade

A minimum credit rating of Baa3 by Moody's Investor Service or BBB- for Standard & Poor's Corporation, and BBB- by Fitch. Investment grade ratings apply to issuers whose financial risk is relatively low and the probability of future payment relatively high.

Issuer

A state or local unit of government that borrows money through the sale of bonds and/or notes.

Leverage

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

LIBOR

An acronym for London Interbank Offer Rate. These rates are based on rates quoted by 16 (for U.S. dollars) British Bankers' Association designated banks as being in their view, the offered rate at which deposits are being quoted to prime banks in the London Interbank Market at 11:00 a.m. London time. Of the 16 contributors, the four highest and four lowest rates are eliminated. An average of the remaining eight is taken.

Liquidity Risk

Liquidity Risk is the ease with which an issue or specified amount can be sold at or near prevailing market prices.

Mark-to-Market

A method of determining the value of securities by applying current trading prices of similar or identical securities to the securities being valued.

Money Market Fund

Fund that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit, and other highly liquid and safe securities, and pays money market rates of interest.

Money Market Security

A short-term, highly-liquid, and relatively low-risk debt instrument (i.e., commercial paper, certificates of deposit, bankers acceptances, U.S. Government Agency discount notes, bank notes, and Treasury Bills and Notes).

Moody's Investors Service

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 9-symbol system. The ranges extend from the highest investment quality, which is Aaa, to the lowest credit rating, which is C. Securities rated Baa3 or greater are considered investment grade. Securities rated Ba1 or below are considered to be speculative.

Mortgage-Backed Security (MBS)

A general term used to describe securities backed by mortgages. MBSs are broken down into four types of securities: mortgage pass-through, mortgage-backed bond, collateralized mortgage obligation (CMO), and stripped mortgage-backed bonds. Mortgage pass-throughs are pooled loans, typically issued by the Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation. Mortgage-backed bonds have mortgage loans as collateral, but the term and interest payments are fixed. CMOs are defined above. Stripped mortgage-backed securities have the principal and interest distribution altered from a pro rata distribution to an unequal distribution.

Notes

Intermediate-term, interest-bearing instruments issued by corporations, municipalities, or the federal government with maturities commonly ranging from five to 12 years.

Option (on a Fixed Income Security)

The right or privilege to either buy (call option) or sell (put option) a designated amount of a particular fixed income security or class of securities during a time period ending on the expiration date of the option.

Option-Adjusted Analysis

A method that strips out embedded options in securities such as callable bonds and mortgage-backed securities, enabling comparisons with other security types within a consistent framework.

Over-the-Counter (OTC)

The market for securities and traded products that are not listed on the major exchanges. OTC options are options with negotiated premium, strike price, and expiration date.

Partial Duration Analysis

A method that measures the price sensitivity of a security or a portfolio to changes in different parts of the yield curve.

Participation Shares in CalPERS Construction Loan Program

LIBOR or prime-based floating rate construction loans targeted for low- to moderate-income housing located in California. The projects are managed by BRIDGE Housing Corporation and underwritten by leading financial institutions. CalPERS then purchases participation shares in the underwritten construction loans.

Prepayment Speed Assumption (PSA)

The PSA, also referred to as Prepayment Standard Assumption, is a percentage expression of the relationship between the actual and expected CPR based on the PSA prepayment assumption. The PSA ramp assumes the mortgages prepay slower in the first 30 months of seasoning. 100% PSA indicates a starting rate of 0.2% CPR increasing 0.2% per month for the first 30 months. A constant 6% CPR is assumed for the remaining life of the mortgage.

Payment Versus Delivery Repurchase Agreement

A short-term, often overnight, sale of securities with an agreement to repurchase the securities at a slightly higher price. In a Delivery Versus Payment Repurchase Agreement, the securities used as collateral are delivered to the custody bank of the investor.

Preferred Stock

Stock shares that represent a portion of ownership in a company, with the shares normally carrying fixed dividends. Sometimes the shares have voting rights, but not generally.

Principal Component Analysis

A method that measures the movements of the yield curve in terms of three main factors: level, slope, and curvature.

Privately Placed

Privately Placed is a negotiated sale in which the securities are sold directly to institutional or private investors, rather than a public offering. Such placements are not registered with the Securities and Exchange Commission.

Ratings

Various alphabetical and numerical designations used by institutional investors, Wall Street underwriters, and commercial rating companies to give relative indications of bond and note creditworthiness. Standard & Poor's and Fitch use the same system, starting with their highest rating of AAA, AA, A, BBB, BB, B, CCC, CC, C, and D for default. Moody's Investors Services uses Aaa, Aa, A, Baa, Ba, B, Caa, Ca, C, and D. Each of the services use + or - or +1 to indicate half steps in between. The top four grades are considered investment grade ratings.

Real Return Relationships

The historical perspective looking at expected returns, less inflation with the expectation that the real return is mean reverting.

Reinvestment Risk

Reinvestment Risk is the uncertain future yield opportunities for investing funds that become available due to call, maturity, or coupon payments.

Repurchase Agreement

Agreement between a seller and a buyer, usually of U.S. government securities, whereby the seller agrees to repurchase the securities at an agreed upon price and, usually, at a stated time.

Scenario Analysis

Projects returns over a number of changing situations (such as interest rates, curve twists, spreads, etc.) and weighs each situation to arrive at an average expected return. This process allows comparisons to varying types of securities and portfolios.

Sector Risk

Sector Risk is the risk of holding sectors proportionally different from the Index.

Security

Instrument that signifies an ownership position in a corporation (stock), a creditor relationship with a corporation or governmental body (bond), or rights to ownership such as those represented by an option, subscription right, and subscription warrant.

~~Senior Investment Officer of Fixed Income~~

~~The senior investment officer is responsible for all fixed income and reports to the chief investment officer of CalPERS.~~

Short Duration FundProgram

A fund program managed by CalPERS staff that is designed to earn a return premium versus traditional short duration assets through a modest increase in portfolio duration and by purchasing a broader universe of short duration securities than those typically available to traditional money market portfolios.

Short Selling

Selling securities that are not owned and buying them back later to: 1) take advantage of an anticipated decline in the price; or 2) to protect a profit in a long position.

Sovereign

A security issued by a foreign government or government sponsored agency.

Speculation

Assumption of risk in anticipation of gain but recognizing a higher than average possibility of loss.

Standard & Poor's (S&P)

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 10-symbol system. The ranges extend from the highest investment quality, which is AAA, to the lowest credit rating, which is D. Securities rated BBB- or greater are considered investment grade. Securities rated BB+ or below are considered speculative.

State Street Bank Short-Term Investment Fund

An institutional money market mutual fund managed by State Street Global Advisors.

Structure Risk

Structure Risk arises from the options implicit in bonds (e.g., callable and optional sinking fund bonds) or the rules governing cash flow that differ from expectations.

Structured Securities

An instrument that is secured by assets like receivables, mortgages, and bonds. Examples of structured securities are asset backed securities, mortgage backed securities, commercial mortgage backed securities, collateralized mortgage obligations, collateralized debt obligations, and collateralized loan obligations.

Supranational Entities

Multinational organizations usually formed for providing financial assistance to less developed countries. Examples of supranational entities include the World Bank and the International Monetary Fund (IMF).

Swap

Private agreement between two companies to exchange cash flows in the future according to a prearranged formula.

Total Return Swap

A swap where the non-floating rate side is based on the total return of an instrument with a life longer than the swap. Total return swaps are also used to transfer credit exposure.

Tri-Party Repurchase Agreement

The same as a delivery versus payment repurchase agreement, except that in a Tri-Party Repurchase Agreement, the collateral is delivered to an independent third party trustee, as opposed to the investor's custody bank.

Uncovered Call

A strategy in which an investor writes (sells) call options on the open market without owning the underlying security. This stands in contrast to a covered call strategy, where the investor owns the security shares that are eligible to be sold under the options contract.

Variable Rate Note

Securities having a coupon or interest rate adjusted periodically on a set date. Typically, variable rate notes have coupons based on a longer-term rate index and are reset once a year or longer.

Weighted-Average Days to Maturity

The average number of days that each dollar of unpaid principal due in the portfolio remains outstanding.

Yankee (Bond) Sovereign

A foreign bond denominated in U.S. dollars that is registered with the Securities and Exchange Commission for sale in the U.S. For purposes of this policy, Yankee Sovereigns must be issued by companies domiciled in G11 countries, Australia, Ireland, or Scotland, and must be rated at least A3 (Moody's) and A- (Standard & Poor's).

Yield Curve

Graph showing the term structure of interest rates by plotting the yields of all bonds of the same quality with maturities ranging from the shortest to the longest available.

Yield Curve Risk

Yield Curve Risk is the price changes induced by the changing slope of the yield curve.

Asset Class Glossary: Fixed Income

Policy: ~~Dollar-Denominated Short-Term Program - Internally Managed~~

April 21, 2008

Amortized Cost Method

Valuations initially value debt securities at acquisition cost. The interest earned on each debt security (plus any discount received or less any premium paid upon purchase) is then accrued ratably during the remaining maturity of the security.

Asset-Backed Security

A security collateralized by assets such as automobile loans, agricultural equipment loans, and credit card loans. The loans are securitized by the issuer and usually placed with a trustee.

~~Authority or Agency~~

~~A state or local unit of government created to perform a single activity or a limited group of functions and authorized by the state legislature to issue bonded debt.~~

Average Life

~~The average length of time expected to take to retire a debt obligation through amortizing payments, through serial maturity, or sinking funds.~~

Bond

A unit of debt, \$1,000 of principal or par amount. For 200 years municipal bonds were sold in \$1,000 denominations. Since the mid-1970s the minimum bond denomination has been \$5,000; nevertheless, "A Bond" is bought, sold, referred to, and priced as if it were \$1,000.

Break-Even Analysis

Uses results from the scenario analysis. Since all projections should be viewed as risky, evaluating the sensitivity of the projected return to adverse market movements is critical. The break-even analysis calculates the movement required to reduce the sector or portfolio returns to a specified level at some horizon. This analysis creates a form of risk/return ratio. The higher the break-even value, the more the cushion against an adverse movement in rates.

Call Risk Analysis

Examines the portfolio's callable securities and estimates the amount of principal returned for a given drop in interest rates.

Callable Securities

Investments that permit the issuer to redeem the security prior to final stated maturity on, or after, specified dates at specified prices.

Collateralized Mortgage Obligation

A mortgage-backed security that pools together mortgages and separates the cash flows into short, medium, and long classes (often called tranches), allowing a wider range of risk and return characteristics than in the more homogeneous pass-through market.

Commercial Paper

An unsecured promissory note issued in the open market to raise short-term funds representing the obligation of the issuing entity.

Corporate

Securities issued in the U.S. market by U.S. corporations or foreign corporations (Yankee bonds).

Credit Rating

A current opinion of an obligor's overall financial capacity (its creditworthiness) to pay its financial obligations. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. In the case of split ratings, the higher rating of either Moody's, Standard & Poor's, or Fitch Investor Services shall apply.

Default

Failure to pay in a timely manner principal and/or interest when due, or a Technical Default, the occurrence of an event as stipulated in the Indenture of Trust resulting in an abrogation of that agreement. A Technical Default can be a warning sign that a default

on debt service is coming, but in reality actual debt service interruption does not always occur if the problems are resolved in time. A Technical Default will almost always drive down the price of a bond in secondary market trading.

Delivery Versus Payment Repurchase Agreement

A short-term, often overnight, sale of securities with an agreement to repurchase the securities at a slightly higher price. In a Delivery Versus Payment Repurchase Agreement, the securities used as collateral are delivered to the custody bank of the investor.

Economic Analysis

~~Examines reference points for indications on what to look for and what events are considered significant in the economy to understand relationships among complex and often seemingly unrelated events. This analysis is used in making decisions concerning duration and sector weightings.~~

Eurodollars

Certificates of deposit in U.S. dollars in a bank that is typically located outside the U.S., usually a bank in Europe.

Evaluation Date

~~The targeted date upon which analysis of the portfolio is being performed.~~

External Manager

~~An outside money management firm retained under contract by CalPERS.~~

Fed Funds

~~Immediately available funds borrowed by banks from certain other financial institutions and government agencies that are exempt from reserve requirements.~~

Federal Open Market Committee

The Federal Reserve committee that has authority over monetary policy and consists of the seven members of the Board of Governors, as well as five of the 12 regional bank presidents. The president of the New York regional bank is always a member of the committee.

Floating Rate Security

~~A bond whose coupon rate is reset periodically (i.e., daily, weekly, monthly, or quarterly). The coupon rate is tied to one of a variety of indices.~~

Futures

~~Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.~~

General Pension Fund Consultant

An individual or organization that provides specialized professional assistance to the CalPERS Board of Administration in determining the pension fund's asset allocation model or optimal combination of investments in order to maximize risk-adjusted investment returns in a manner consistent with the State's long-term pension liabilities.

Issuer

A state or local unit of government that borrows money through the sale of bonds and/or notes.

LIBOR

An acronym for London Interbank Offer Rate. These rates are based on rates quoted by 16 (for U.S. dollars) British Bankers' Association designated banks as being in their view, the offered rate at which deposits are being quoted to prime banks in the London Interbank Market at 11:00 a.m. London time. Of the 16 contributors, the four highest and four lowest rates are eliminated. An average of the remaining eight is taken.

Mark-to-Market

A method of determining the value of securities by applying current trading prices of similar or identical securities to the securities being valued.

Medium Term Notes

A debt security, like any other senior or subordinated debt, with a maturity of two to 10 years offered through one or more dealers. Medium-term notes are fixed coupons and maturities that can be targeted to meet investor requirements. They are issued in the capital markets either publicly under a Securities Exchange Commission 415 shelf registration or privately without such registration.

Money Market Security

A short-term, highly-liquid, and relatively low-risk debt instrument (i.e., commercial paper, certificates of deposit, bankers acceptances, U.S. Government Agency discount notes, bank notes, and Treasury Bills and Notes).

Moody's Investors Service

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 9-symbol system. The ranges extend from the highest investment quality, which is Aaa, to the lowest credit rating, which is C. Securities rated Baa3 or greater are considered investment grade. Securities rated Ba1 or below are considered to be speculative.

Mortgage-Backed Security (MBS)

A general term used to describe securities backed by mortgages. MBSs are broken down into four types of securities: mortgage pass-through, mortgage-backed bond, collateralized mortgage obligation (CMO), and stripped mortgage-backed bonds. Mortgage pass-throughs are pooled loans, typically issued by the Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan

~~Mortgage Corporation. Mortgage-backed bonds have mortgage loans as collateral, but the term and interest payments are fixed. CMOs are defined above. Stripped mortgage-backed securities have the principal and interest distribution altered from a pro-rata distribution to an unequal distribution.~~

Notes

~~Intermediate-term, interest-bearing instruments issued by corporations, municipalities, or the federal government with maturities commonly ranging from five to 12 years.~~

Option

Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.

Option-Adjusted Analysis

~~A method that strips out embedded options in securities such as callable bonds and mortgage-backed securities, enabling comparisons with other security types within a consistent framework.~~

Privately Traded Domestic Money Market Securities

For the purpose of this policy, defined as Section 4(2) commercial paper securities. Section 4(2) commercial paper is used to finance non-current transactions (i.e., acquisitions or stock buybacks). Paper issued under the 4(2) exemption is targeted to "accredited" investors (typically defined by Regulation D) who are deemed qualified to make investments by virtue of their industry or size.

Ratings

~~Various alphabetical and numerical designations used by institutional investors, Wall Street underwriters, and commercial rating companies to give relative indications of bond and note creditworthiness. Standard & Poor's and Fitch use the same system, starting with their highest rating of AAA, AA, A, BBB, BB, B, CCC, CC, C, and D for default. Moody's Investors Services uses Aaa, Aa, A, Baa, Ba, B, Caa, Ca, C, and D. Each of the services use + or - or +1 to indicate half steps in between. The top four grades are considered investment-grade ratings.~~

Repurchase Agreement

~~Agreement between a seller and a buyer, usually of U.S. government securities, whereby the seller agrees to repurchase the securities at an agreed-upon price and, usually, at a stated time.~~

Scenario Analysis

~~Projects returns over a number of changing situations (such as interest rates, curve twists, spreads, etc.) and weighs each situation to arrive at an average expected return. This process allows comparisons to varying types of securities and portfolios.~~

Security

Instrument that signifies an ownership position in a corporation (stock), a creditor relationship with a corporation or governmental body (bond), or rights to ownership such as those represented by an option, subscription right, and subscription warrant.

Split-Rated Security

A security that has a different credit classification by two rating agencies. For the purpose of this policy, a security is called a split-rated security, if Standard & Poor's and Moody's report a difference in the ratings.

Standard & Poor's (S&P)

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 10-symbol system. The ranges extend from the highest investment quality, which is AAA, to the lowest credit rating, which is D. Securities rated BBB- or greater are considered investment grade. Securities rated BB+ or below are considered speculative.

State Street Bank Short-Term Investment Fund

An institutional money market mutual fund managed by State Street Global Advisors.

Tri-Party Repurchase Agreement

The same as a delivery versus payment repurchase agreement, except that in a Tri-Party Repurchase Agreement, the collateral is delivered to an independent third party trustee, as opposed to the investor's custody bank.

Watchlist Status

Indicates a level of concern, the degree of which shall be unique to each situation with the parameters specified in the relevant policy.

Weighted-Average Days to Maturity

The average number of days that each dollar of unpaid principal due in the portfolio remains outstanding.

Yankee Bonds

Securities issued in the domestic market by foreign borrowers. Yankee bonds must be issued by companies domiciled in G11 countries, Australia, Ireland, or Scotland, and must be rated at least A3 (Moody's) and A- (Standard & Poor's).

Yield Curve

Graph showing the term structure of interest rates by plotting the yields of all bonds of the same quality with maturities ranging from the shortest to the longest available.

